

# PRECAST AND PRESTRESSED CONCRETE STRUCTURAL MEMBERS

The Standard Specifications are revised as follows:

SECTION 707, BEGIN LINE 115 DELETE AND INSERT AS FOLLOWS:

**(c) Concrete.** Concrete shall be air entrained and in accordance with the applicable provisions requirements of 702.05. ~~Water reducing, or water reducing and retarding admixtures may be used. Admixtures shall not contain chlorides which have been added as an ingredient of manufacture. Chemical admixture types A, D, F, or G shall be used in combination with an air entraining admixture. High range water reducing, HRWR, and high range water reducing retarding, HRWRR, admixture systems may be used. Chemical admixtures types B, C, and E will be permitted only with written permission.~~ Admixtures, other than air-entraining admixtures, shall not be used with air-entrained cement. The cement content of the mixed concrete shall be sufficient to obtain the specified minimum 28 day compressive strength. ~~The provisions of the yield test to determine the cement content in accordance with 109.01(e) will not apply.~~ Slump shall be no less than 50 mm (2 in.) nor more than 125 mm (5 in.) *for concrete without chemical admixtures or concrete containing chemical admixture types A and D.* ~~Precast concrete members which are not prestressed shall have a minimum compression strength of 31 MPa (4500 psi) in 28 days.~~

*Concrete containing admixture types F, G, or admixture systems shall have a slump no less than 75 mm (3 in.) nor more than 175 mm (7 in.). The amount of time from mixing to final placement and consolidation shall be a maximum of 30 min. The concrete shall not be retempered with additional amounts of chemical admixture types F or G after the initial mixing has been completed.*

*Precast concrete members which are not prestressed shall have a minimum compressive strength of 31 MPa (4500 psi) in 28 days.* Prestressed members shall be in accordance with the following unless otherwise shown on the plans:

1. *Maximum water/cement ratio in kilograms (pounds) of water per kilogram (pound) of cement shall be 0.400.*
12. Minimum 28 day compressive strength of concrete shall be 34.5 MPa (5,000 psi).
- 2 3. Minimum compressive strength of concrete at time of prestressing shall be 27.6 MPa (4,000 psi).
- 3 4. Initial tension of prestressing steel shall be as shown on the plans.

SECTION 707, BEGIN LINE 273, DELETE AND INSERT AS FOLLOWS:

**707.08 Handling and Shipping.** The precast members shall not be subjected to excessive abuse which produces crushing or undue marring of the concrete. ~~Members damaged by improper storing or handling shall be replaced with no additional payment.~~ *All members damaged during handling, storing, transporting, or erecting shall be replaced.* Unless some other method is approved, precast members shall be handled with a suitable hoisting device provided with a

spreader sling. The spreader shall be of sufficient length to prevent horizontal forces being produced in the member due to lifting and shall be equipped with leads and hooks at each end. The girders shall be lifted by the devices shown on the plans. Alternate lifting devices and procedures shall be at the owner's or supplier's option, and must be approved prior to use. If any other method of handling is used, it shall be shown on the shop drawings and approved prior to use. If the method produces horizontal forces in the precast member, sufficient steel reinforcement shall be added to compensate for them.

SECTION 707, AFTER LINE 376, INSERT AS FOLLOWS:

*No payment will be made for replacing precast members damaged during handling, storing, transporting or erecting.*

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